



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-1241; Product Identifier 2017-NM-117-AD; Amendment 39-19611; AD 2019-06-13]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for all The Boeing Company Model 787 series airplanes. This AD was prompted by reports of hydraulic leakage caused by damage to aileron and elevator actuators from lightning strikes. This AD requires an inspection or records check to inspect for certain parts, detailed inspections of aileron and elevator power control units (PCUs), and applicable on-condition actions. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this service

information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-1241.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-1241; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the regulatory evaluation, any comments received, and other information. The address for Docket Operations (phone: 800-647-5527) is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Kelly McGuckin, Aerospace Engineer, Systems and Equipment Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3546; email: Kelly.McGuckin@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all The Boeing Company Model 787 series airplanes. The NPRM published in the Federal Register on January 10, 2018 (83 FR 1198). The NPRM was prompted by reports of hydraulic leakage caused by damage to aileron and elevator actuators from lightning strikes. The NPRM proposed to require a records check to inspect for certain parts, a detailed inspection of aileron and elevator PCUs, and applicable on-condition actions.

We are issuing this AD to address hydraulic leakage in aileron and elevator PCUs, which, when coupled with an independent subsequent loss of two hydraulic systems, could result in an inability to maintain aileron or elevator actuator stiffness and lead to airplane control surface oscillations, which could damage the control surfaces and cause reduced controllability of the airplane.

Comments

We gave the public the opportunity to participate in developing this final rule. The following presents the comments received on the NPRM and the FAA's response to each comment.

Support for the NPRM

The Air Line Pilots Association, International (ALPA) and commenter Leif Miller indicated their support for the NPRM.

Request to Reference Later Revisions of Service Information

Oman Air requested that the proposed AD be revised to allow actions in accordance with "any later FAA-approved revision of" the service information. The commenter noted that Boeing was considering issuing updated service information to incorporate differences between the service information and proposed AD.

We agree to clarify. We may not refer to any document that does not yet exist. In general terms, we are required by Office of the Federal Register (OFR) regulations to either publish the service document contents as part of the actual AD language; or submit the service document to the OFR for approval as referenced material, in which case we may only refer to such material in the text of an AD. The AD may refer to the service document only if the OFR approved it for incorporation by reference. See 1 CFR part 51. To allow operators to use later revisions of the referenced document (issued after publication of the AD), either we must revise the AD to reference specific later revisions,

or operators must request approval to use later revisions as an alternative method of compliance with this AD under the provisions of paragraph (n) of this AD.

However, we note that Boeing has issued Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 003, dated December 3, 2018. This revised service information clarifies instructions and requirements, revises the effectivity to account for part rotability (which does not add airplanes to this AD, since we already included all The Boeing Company Model 787 series airplanes in our applicability), and corrects errors in certain part numbers. This new service information does not include any new actions. We have revised this AD to refer to Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 003, dated December 3, 2018, and revised paragraph (l) of this AD to provide credit for actions performed using Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 002, dated July 19, 2017. We have also removed paragraphs (k)(2) and (k)(3) of the proposed AD, as the revised service information makes them unnecessary, and revised the language in paragraph (k)(1) of this AD based on the revised compliance language in the new service information.

Request to Clarify Records Check

Oman Air, All Nippon Airways (ANA), and Xiamen Airlines requested that we clarify the instructions related to the records check specified in paragraph (g) of the proposed AD. The commenters noted that Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 002, dated July 19, 2017, incorrectly lists the PCU remote electronics unit (REU) assembly part number, rather than the PCU part number. The commenters also noted that the part numbers of the PCU REU assembly are not available on the airplane readiness log part list (ARL). ANA added that the PCU REU assembly part number is written in ink and may no longer be legible after extended periods on the airplane.

ANA and Xiamen Airlines added that the PCU part number cannot be determined easily when the part is on the airplane, due to limited clearance. ANA asked that the proposed AD be revised to allow using a borescope inspection (BSI) tool to determine the aileron PCU part number.

Oman Air suggested the applicability of the proposed AD be revised to list only the airplanes having line numbers known to have been delivered with affected parts. Oman Air added that the 787 illustrated parts data (IPD) could be revised to prohibit the installation of the affected parts on airplanes that were not delivered with affected parts.

We agree to clarify. As noted earlier, we have revised this AD to refer to Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 003, dated December 3, 2018. This service information includes the affected PCU numbers and a note that allows the use of a BSI tool to determine the aileron and elevator PCU part numbers.

We disagree with Oman Air's request to revise the applicability. The affected PCUs are rotatable parts, and we have determined that these PCUs could later be installed on airplanes that were initially delivered with acceptable PCUs, thereby subjecting those airplanes to the unsafe condition. In addition, we do not control approval of the IPD and cannot require Boeing to update this document. We have not changed this AD regarding these issues.

Request to Extend the Compliance Time for Reporting

ANA and United Airlines (UAL) requested that we extend the compliance time for reporting discrepant findings from 30 days to 60 days. ANA noted that the work is outsourced to a maintenance shop, and it takes time to receive the results from that shop. UAL stated that the serial number of the discrepant PCU is most easily found when the PCU is removed from the airplane, which may take up to one month after a leakage rate discrepancy is found. As an alternative, UAL suggested that the 30-day compliance time

for reporting could be counted from the day the discrepant part is removed, rather than the day of the leakage rate inspection.

We agree with the commenters' requests to extend the compliance time for reporting for the reasons provided. We have revised paragraphs (i)(1) and (i)(2) of this AD to require reporting within 60 days, rather than 30 days.

Request to Clarify Reporting Requirement

UAL requested that we clarify whether reporting is required for discrepant findings, if those findings were found during the accomplishment of Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 001, dated September 27, 2016 (paragraph (l) of the proposed AD allows credit for the actions specified in paragraph (g) of this AD if they were accomplished using Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 001, dated September 27, 2016), which does not require reporting.

We agree to clarify. As specified in paragraph (l) of the proposed AD, operators get credit for the actions specified in paragraph (g) of this AD, if those actions were done previously. Therefore, if an operator used Issue 001 of the service information (which does not include reporting), they would not be able to take credit for the reporting requirement as specified in paragraphs (g) and (i) of this AD. As noted by paragraph (i)(2) of this AD, reporting of discrepant findings is required for inspections done before the effective date of this AD.

We have moved the text from paragraph (l) of the proposed AD to paragraphs (l)(1) and (l)(2) of this AD. For clarity, we have also added text to paragraph (l)(1) of this AD to specify that reporting must still be done if Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 001, dated September 27, 2016, was used.

Request to Clarify Whether Reporting Will be Required in the Final Rule

CCA/AMECO requested that we clarify whether we intend to include the reporting specified in the proposed AD as a requirement in this final rule.

We agree to clarify. Paragraph (g) of this AD requires reporting, among other actions, and paragraph (i) of this AD specifies the compliance times for the reporting. As noted earlier, the compliance time for this reporting has been extended from 30 days to 60 days in this final rule.

Request to Define Discrepant Findings

American Airlines (AAL) requested that we clarify paragraph (i) of the proposed AD to more clearly state what constitutes a “discrepant” finding that must be reported. AAL noted that the service information and proposed AD do not define “discrepant”, and stated that this could lead to confusion regarding what needs to be reported.

We agree to clarify. As noted earlier, we have revised this AD to refer to Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 003, dated December 3, 2018, which specifies reporting based on various conditions. Those conditions are specified in the Accomplishment Instructions of Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 003, dated December 3, 2018, with actions stating to “report all discrepant findings.” We have not changed this AD regarding this issue.

Request to Allow Installation of Non-Affected PCUs

ANA and AAL requested that the proposed AD be revised to allow the installation of a “non-affected” PCU. ANA noted that Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 002, dated July 19, 2017, states to replace certain PCUs with a serviceable PCU, but does not allow installing non-affected PCUs having part number C99160-004. AAL added that installation of improved non-affected parts is not allowed by the proposed AD.

We agree with the commenters’ requests. As stated earlier, we have revised this final rule to refer to Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 003, dated December 3, 2018; among other changes, this revision of the service information allows the installation of non-affected PCUs.

Request to Correct Certain Part Numbers

ANA noted that the “Spare Interchangeability” column of Table 2 in Appendix D of Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 002, dated July 19, 2017, states that it lists the elevator PCU part numbers, but it really lists the aileron PCU part numbers. We infer that the commenter is asking us to correct this information.

We agree with the commenter’s request. As stated earlier, we have revised this final rule to refer to Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 003, dated December 3, 2018; among other changes, this revision of the service information corrects the specified part numbers.

Request to Clarify Leakage Levels for Different PCUs

Boeing requested that we revise the fourth paragraph under “Differences Between Proposed AD and the Service Information” of the proposed AD. Boeing asked that text stating “any leakage measured during the detailed inspection of the aileron PCU or elevator PCU that is more than 6 drops (or 9 drops, depending on the inspection)...” be revised to state “any leakage measured during the detailed inspection that is more than 6 drops for the aileron PCU (or 9 drops for the elevator PCU).” Boeing requested a similar language revision for the last sentence of that paragraph. Boeing stated that the language in the NPRM was not clear and could cause confusion regarding when repair or replacement is needed.

We acknowledge the commenter’s request and agree that the proposed language would provide clarity. However, the “Differences Between Proposed AD and the Service Information” paragraph is not carried over to this final rule. We note that the revised service information clearly identifies the conditions that require repair or replacement. We have not changed this AD in this regard.

Request to Clarify Hydraulic Fluid Leakage Levels Detected

Boeing requested that we revise the Discussion sentence of the proposed AD to remove the word “excessive” when referring to hydraulic fluid leakage levels. Boeing noted that the reported in-service events found only minor leakage, not excessive leakage. Boeing added that the actions in the proposed AD are intended to prevent excessive leakage.

We acknowledge the commenter’s request and agree that the proposed language would provide clarity. However, the sentence in question is not carried over to this final rule. We have not changed this final rule in this regard.

Request to Clarify Terminating Action

Boeing requested that we revise paragraph (h) of the proposed AD to specify that removal “and replacement” of all affected PCUs “with unaffected PCUs” terminates the requirements of paragraph (g) of this AD until an affected PCU is installed, “then the requirements of paragraph (g) are again required.” Boeing suggested that revising the language to add the quoted text would help to clarify that replacement with an affected PCU would require operators to perform inspections and on-condition actions on that affected PCU.

We agree to clarify. As the commenter noted, if an affected PCU is installed on an airplane, it is subject to inspections and on-condition actions. Paragraph (j) of this AD specifies the conditions under which an affected PCU may be installed on an airplane, including that the PCU is inspected and all applicable on-condition actions are done as specified in paragraph (g) of this AD, and discrepant findings are reported as required by paragraph (g) of this AD at the applicable times specified in paragraph (i) of this AD. We have revised paragraph (h) of this AD to clarify that once an affected part is installed on an airplane, the actions in paragraph (j) of this AD must be done on that airplane.

Request to Clarify Interim Action

Boeing requested that we revise the Interim Action paragraph in the NPRM to say “the manufacturer may develop a modification” instead of “the manufacturer is currently developing a modification” and “if this modification is developed” instead of “when this modification is developed.” Boeing noted that it is reviewing the potential for a modification that may be able to address the identified unsafe condition.

We agree with the commenter for the reasons stated. We have revised the Interim Action paragraph of this final rule accordingly.

Request to Revise Applicability

Boeing requested that we revise the applicability of our proposed AD from “all The Boeing Company Model 787 series airplanes” to “all The Boeing Company Model 787-8 and 787-9 airplanes.” Boeing stated that the approved type design allows installation of affected PCUs on only Model 787-8 and 787-9 airplanes, not on Model 787-10 airplanes.

We disagree with the commenter’s request. As noted in the proposed AD, the affected PCUs are rotatable parts. Although they are not part of the approved type design, the affected PCUs could be physically installed on Model 787-10 airplanes. Therefore, we included these models in our applicability to ensure the unsafe condition is addressed if an affected PCU is installed on a Model 787-10 airplane. We have not changed this AD regarding this issue.

Request to Revise Certain Inspection Times

Oman Air requested that paragraph (j)(1) of the proposed AD be revised to revise the requirement to inspect an affected PCU “after installation and before further flight” if the PCU is a repaired or overhauled unit coming from an authorized shop. Oman Air suggested that for units removed from airplanes in a serviceable condition, then

reinstalled, the initial inspection for such PCUs be required within 6,000 flight hours after the last inspection, rather than before further flight.

We disagree with the commenter's request. Affected PCUs are subject to the unsafe condition described in this AD. The repair or overhaul may have been unrelated to the unsafe condition, so an inspection before further flight is necessary to ensure that a PCU with unacceptable levels of hydraulic leakage is not installed on an airplane affected by this AD. We have not changed this AD regarding this issue.

Request to Clarify Provisions of Parts Installation Limitations

Oman Air requested that we provide clarification on paragraph (j) of the proposed AD. Oman Air asked if an affected but serviceable PCU is installed during unscheduled maintenance, would that PCU only need to be inspected and tested before further flight (rather than repetitively as specified in paragraph (g) of the proposed AD). The commenter noted that in order to determine which actions are applicable for a given airplane, an operator must know the part number and condition of both the replaced PCU and the other PCU on that surface (aileron or elevator). Oman Air noted that the inspection requirements and on-condition actions for the replacement PCU are conditional based on the leak test results of the other PCU on that surface.

We agree to clarify. Paragraph (j) of this AD is intended to allow operators to install an affected PCU, provided it is inspected as required by paragraph (g) of this AD after installation and prior to flight. An affected PCU installed as specified in paragraph (j) of this AD is subject to the repetitive inspections and applicable on-condition actions required by paragraph (g) of this AD, and the reporting required by paragraph (g) of this AD that must be done at the applicable times specified in paragraph (i) of this AD. As the commenter noted, in order to comply with paragraph (g) of this AD, an operator must know the part number of both PCUs on a given surface, as well as the status of any

applicable leakage tests on each PCU. We have clarified the language in the introductory text of paragraph (j) and in paragraphs (j)(1) and (j)(2) of this AD.

Request to Prohibit Installation of Affected PCUs

AAL requested that we revise paragraph (j) of the proposed AD to not allow the installation of an affected PCU. AAL suggested that if installing a single affected PCU in combination with unaffected PCUs presents a significant enough unsafe condition to require repetitive inspections of the affected PCU, then we should prohibit the installation of affected PCUs.

We disagree with the request. The provisions in paragraph (j) of this AD allowing the installation of affected PCUs, provided inspections and on-condition actions are done on the PCUs, are intended to provide flexibility to operators while ensuring an acceptable level of safety. A configuration with a mix of affected and unaffected PCUs is acceptable provided the actions in paragraphs (j)(1) and (j)(2) of this AD are done. The intent of this AD is to address the identified unsafe condition for PCUs subject to the noted hydraulic fluid leakage while those parts are used in service. We have not changed this AD regarding this issue.

Request to Allow Installation of One Unaffected PCU to Terminate Inspections

AAL requested that we revise the proposed AD to allow the installation of one unaffected PCU on a control surface to terminate the inspections required by paragraph (g) of the proposed AD. AAL stated that it understands the unsafe condition happens only when both PCUs are leaking hydraulic fluid due to damage incurred by a lightning strike. AAL added that the improved, unaffected PCUs include measures to eliminate the lightning strike damage concern.

We disagree with the commenter's request. This AD is considered interim action intended to address the unsafe condition. Allowing the installation of one unaffected PCU to terminate the repetitive inspections and on-condition actions on the affected PCU

would not adequately address the unsafe condition. The actions required by this AD will remove the affected parts from service or mitigate the unsafe condition. If the manufacturer develops a modification that will address the unsafe condition identified in this AD, we might consider additional rulemaking. We have not changed this AD regarding this issue.

Request to Clarify Part Number Identification Technique

ANA requested that we clarify whether certain methods of identifying affected part numbers are acceptable for compliance with the proposed AD. ANA noted that on its airplanes, the part number of the PCU is written in permanent marker and may not be legible after extensive time on the airplane. ANA noted that Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 003, dated December 3, 2018, states to inspect the elevator and aileron PCU part numbers in accordance with certain tasks. ANA added that related appendixes list both the PCU part numbers and the PCU assembly part numbers; the assembly part numbers are stamped on identification or mod plates, and can be easily found and read. ANA also noted that Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 003, dated December 3, 2018, added a note stating that a records review is acceptable for parts identification of the PCU part number, but the service information did not state whether the PCU assembly part number is an acceptable means of identifying affected parts. ANA asked if it is acceptable to use the PCU assembly part numbers for identification of affected parts, or if it would have to request an alternative method of compliance (AMOC) to do so. ANA also asked if using a records check to identify the PCU assembly part numbers would be allowed without obtaining an AMOC.

We agree to clarify. The intent of Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 003, dated December 3, 2018, is to allow flexibility in determining the PCU part numbers. We have added paragraph (k)(2) to this AD to specify that using

the PCU assembly part number identified in the applicable Appendix of Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 003, dated December 3, 2018, is acceptable to determine if the PCU is an affected part; the PCU or PCU assembly part number may be determined through an inspection or records check.

Request to Clarify Compliance Time

CCA/AMECO requested that we provide clarification regarding the compliance time for the actions specified in paragraph (g) of the proposed AD. The commenter noted that it has several airplanes that have exceeded the initial compliance times noted in Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 003, dated December 3, 2018.

We agree to clarify. Paragraph (k)(1) of this AD provides relief to the compliance times in the service bulletin by allowing times to be counted from the effective date of this AD instead of from “the Issue 002 date of this service bulletin.”

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this final rule with the changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this final rule.

Related Service Information under 1 CFR part 51

We reviewed Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 003, dated December 3, 2018. The service information describes procedures for an inspection or records check to inspect for certain parts, detailed inspections for external leakage of the aileron and elevator PCUs, reporting of PCUs with discrepant leakage, and replacement if necessary. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Interim Action

We consider this AD interim action. The manufacturer may develop a modification that will address the unsafe condition identified in this AD. If this modification is developed, approved, and available, we might consider additional rulemaking.

Costs of Compliance

We estimate that this AD affects 82 airplanes of U.S. registry. We estimate the following costs to comply with this AD:

Estimated costs for required actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspections	Up to 20 work-hours X \$85 per hour = \$1,700 per inspection cycle	\$0	Up to \$1,700 per inspection cycle	Up to \$139,400 per inspection cycle

We estimate the following costs to do any necessary reporting that would be required. We have no way of determining the number of aircraft that might need these reports:

Estimated costs of on-condition actions

Labor cost	Parts cost	Cost per product
1 work-hour X \$85 per hour = \$85	\$0	\$85

We have received no definitive data that would enable us to provide cost estimates for the records check or certain on-condition actions specified in this AD.

According to the manufacturer, some or all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB control number. The control number for the collection of information required by this AD is 2120-0056. The paperwork cost associated with this AD has been detailed in the Costs of Compliance section of this document and includes time for reviewing instructions, as well as completing and reviewing the collection of information. Therefore, all reporting associated with this AD is mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at 800 Independence Ave., SW, Washington, DC 20591, ATTN: Information Collection Clearance Officer, AES-200.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator.

Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes and associated appliances to the Director of the System Oversight Division.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2019-06-13 The Boeing Company: Amendment 39-19611 ; Docket No. FAA-2017-1241; Product Identifier 2017-NM-117-AD.

(a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all The Boeing Company Model 787 series airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 27, Flight Controls.

(e) Unsafe Condition

This AD was prompted by reports of hydraulic leakage caused by damage to aileron and elevator actuators from lightning strikes. We are issuing this AD to address hydraulic leakage in aileron and elevator power control units (PCUs), which, when coupled with an independent subsequent loss of two hydraulic systems, could result in an inability to maintain aileron or elevator actuator stiffness and lead to airplane control surface oscillations, which could damage the control surfaces and cause reduced controllability of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

Except as required by paragraphs (i) and (k) of this AD: For airplanes with an original certificate of airworthiness or original export certificate of airworthiness issued on or before the effective date of this AD, at the applicable times specified in paragraph 5, “Compliance,” of Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 003, dated December 3, 2018, do all applicable actions identified as “RC” (required for compliance) in, and in accordance with, the Accomplishment Instructions of Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 003, dated December 3, 2018.

(h) Terminating Action

Removal of all affected PCUs, as identified in Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 003, dated December 3, 2018, terminates the requirements of paragraph (g) of this AD until an affected PCU is installed. Once an affected PCU is installed on an airplane, the actions specified in paragraph (j) of this AD must be done on that airplane.

(i) Reporting Compliance Times

Where Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 003, dated December 3, 2018, specifies to submit a report of discrepant findings, this AD requires submitting reports at the applicable times specified in paragraphs (i)(1) and (i)(2) of this AD.

(1) If the inspection was done on or after the effective date of this AD: Submit the report within 60 days after the inspection.

(2) If the inspection was done before the effective date of this AD: Submit the report within 60 days after the effective date of this AD.

(j) Parts Installation Limitation

For all Model 787 series airplanes: As of the effective date of this AD, an affected PCU, as identified in Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 003, dated December 3, 2018, may be installed provided the conditions specified in paragraphs (j)(1), (j)(2), and, as applicable, (j)(3) of this AD are met. Thereafter, comply with the actions required by paragraph (g) of this AD.

(1) The PCU is inspected as specified in paragraph (g) of this AD after installation and before further flight.

(2) All applicable on-condition actions are done before further flight.

(3) A report is submitted as required by paragraph (g) of this AD at the applicable time specified in paragraph (i) of this AD.

(k) Exception to Service Information Specifications

(1) For purposes of determining compliance with the requirements of this AD, Where Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 003, dated December 3, 2018, uses “the Issue 002 date of this service bulletin,” this AD requires using “the effective date of this AD.”

(2) Where Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 003, dated December 3, 2018, refers to an inspection or records check to determine the PCU part number and refers to an Appendix for affected PCU part numbers, this AD also allows using the PCU assembly part number identified in the applicable Appendix to determine if the PCU is an affected part.

(l) Credit for Previous Actions

(1) This paragraph provides credit for the actions specified in paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 001, dated September 27, 2016. Since reporting is not specified in Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 001, dated September 27, 2016, submit reports as required by paragraph (g) of this AD at the applicable times specified in paragraph (i) of this AD.

(2) This paragraph provides credit for the actions specified in paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 002, dated July 19, 2017.

(m) Paperwork Reduction Act Burden Statement

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 1 hour per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be

directed to the FAA at: 800 Independence Ave. SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

(n) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (o)(1) of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO Branch, FAA, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) For service information that contains steps that are labeled as RC, the provisions of paragraphs (n)(4)(i) and (n)(4)(ii) of this AD apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. If a step or substep is labeled “RC Exempt,” then the RC requirement is removed from that step or substep. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

(o) Related Information

(1) For more information about this AD, contact Kelly McGuckin, Aerospace Engineer, Systems and Equipment Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3546; email: Kelly.McGuckin@faa.gov.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (p)(3) and (p)(4) of this AD.

(p) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Boeing Alert Service Bulletin B787-81205-SB270037-00, Issue 003, dated December 3, 2018.

(ii) [Reserved]

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>.

(4) You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:
<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

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Michael Kaszycki,
Acting Director,
System Oversight Division,
Aircraft Certification Service.
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